

Amendment and Response

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For: BIOLOGICAL SAMPLE PROCESSING METHODS AND COMPOSITIONS THAT INCLUDE SURFACTANTS

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31. (Amended) A method of conducting a thermal cycling process, the method comprising:

providing a device comprising at least one process chamber that defines a volume for containing a sample mixture comprising a biological material, an enzyme, a dye, and an effective amount of a surfactant selected from the group of a nonionic surfactant, a zwitterionic surfactant, and a mixture thereof;

delivering electromagnetic energy to the process chamber to raise the temperature of the sample material in the process chamber, wherein the dye converts the electromagnetic energy into thermal energy;

wherein the dye inactivates the enzyme in the absence of the surfactant, and the surfactant inhibits such inactivation.

38. (Amended) The method of claim 31 wherein the sample mixture further comprises a triphosphate.

41. (Amended) A method of conducting a thermal cycling process comprising:

providing a device comprising at least one process chamber that defines a volume for containing a sample mixture comprising a biological material, a polymerase enzyme, a near-IR dye, an effective amount of a nonionic surfactant, and a triphosphate;

delivering electromagnetic energy to the process chamber to raise the temperature of the sample material in the process chamber, wherein the dye converts the electromagnetic energy into thermal energy;

wherein the dye inactivates the enzyme in the absence of the surfactant, and the surfactant inhibits such inactivation.